Monthly Notices
OF THE
Royal Astronomical Society

VOLUME 270
1994 SEPTEMBER–OCTOBER

Editorial Board

DR M. J. BARLOW, DEPARTMENT OF PHYSICS AND ASTRONOMY, UNIVERSITY COLLEGE LONDON

DR J. J. BINNEY, DEPARTMENT OF THEORETICAL PHYSICS, OXFORD

DR R. F. CARSWELL, INSTITUTE OF ASTRONOMY, CAMBRIDGE

DR J. E. DREW, DEPARTMENT OF ASTROPHYSICS, OXFORD

PROFESSOR A. C. FABIAN, INSTITUTE OF ASTRONOMY, CAMBRIDGE

PROFESSOR M. W. FEAST, DEPARTMENT OF ASTRONOMY, UNIVERSITY OF CAPE TOWN

PROFESSOR D. R. FLOWER, DEPARTMENT OF PHYSICS, UNIVERSITY OF DURHAM

DR D. C. HEGGIE, DEPARTMENT OF MATHEMATICS & STATISTICS, UNIVERSITY OF EDINBURGH

DR D. W. HUGHES, DEPARTMENT OF PHYSICS, UNIVERSITY OF SHEFFIELD

PROFESSOR F. D. KAHN, DEPARTMENT OF ASTRONOMY, UNIVERSITY OF MANCHESTER

PROFESSOR J. C. B. PAPALOIZOU, SCHOOL OF MATHEMATICAL SCIENCES, QUEEN MARY & WESTFIELD COLLEGE LONDON

DR J. R. SHAKESHAFT, MULLARD RADIO ASTRONOMY OBSERVATORY, CAMBRIDGE

PROFESSOR S. D. M. WHITE, MAX-PLANCK-INSTITUT FÜR ASTROPHYSIK, GARCHING BEI MÜNCHEN

Published for the
Royal Astronomical Society by
Blackwell Scientific Publications
OXFORD LONDON EDINBURGH
BOSTON MELBOURNE
PARIS BERLIN VIENNA

List of key words used in the annual subject indexes

(valid from January 1994)

This list is common to *Monthly Notices of the Royal Astronomical Society, Astronomy and Astrophysics,* and *The Astrophysical Journal.* In order to ease the search, the key words are subdivided into broad categories. No more than *six* subcategories altogether should be listed for a paper.

The subcategories in boldface containing the word 'individual' are intended for use with specific astronomical objects; these should never be used alone, but always in combination with the most common names for the astronomical objects in question. Note that each object counts as one subcategory within the allowed limit of six.

The parts of the key words in italics are for reference only and should be omitted when the key words are entered on the manuscript.

General

book reviews
editorials, notices
errata, addenda
extraterrestrial intelligence
history and philosophy of astronomy
miscellaneous
obituaries, biographies

Physical data and processes

acceleration of particles
accretion, accretion discs
atomic data
atomic processes
black hole physics
chaotic phenomena
conduction
convection
cosmic strings
dense matter
diffusion
elementary particles
equation of state
gravitation
hydrodynamics
instabilities
line: formation
line: identification
line: profiles
magnetic fields
(magnetohydrodynamics) MHD
masers
molecular data
molecular processes
nuclear reactions, nucleosynthesis, abundances
plasmas
polarization
radiation mechanisms: non-thermal
radiation mechanisms: thermal
radiative transfer
relativity
scattering
shock waves
turbulence
waves

Astronomical instrumentation, methods and techniques

atmospheric effects
balloons
instrumentation: detectors
instrumentation: interferometers
instrumentation: miscellaneous
instrumentation: photometers
instrumentation: polarimeters
instrumentation: spectrographs
methods: analytical
methods: data analysis
methods: miscellaneous
methods: numerical
methods: observational
methods: statistical
site testing
space vehicles
techniques: image processing
techniques: interferometric
techniques: miscellaneous
techniques: photometric
techniques: polarimetric
techniques: radar astronomy
techniques: radial velocities
techniques: spectroscopic
telescopes

Astronomical data bases

astronomical data bases: miscellaneous
atlases
catalogues
surveys

Astrometry and celestial mechanics

astrometry
celestial mechanics, stellar dynamics
eclipses
ephemerides
occultations
reference systems
time

The Sun

Sun: abundances
Sun: activity
Sun: atmosphere
Sun: chromosphere
Sun: corona
Sun: faculae, plages
Sun: filaments
Sun: flares
Sun: fundamental parameters
Sun: general
Sun: granulation
Sun: infrared
Sun: interior
Sun: magnetic fields
Sun: oscillations
Sun: particle emission
Sun: photosphere
Sun: prominences
Sun: radio radiation
Sun: rotation
(Sun:) solar–terrestrial relations
(Sun:) solar wind
(Sun:) sunspots
Sun: transition region
Sun: UV radiation
Sun: X-rays, gamma-rays

Solar system

comets: general
comets: individual:...
Earth
interplanetary medium
meteors, meteoroids
minor planets, asteroids
Moon
planets and satellites: general
planets and satellites: individual:...
Solar system: formation
Solar system: general

Stars

stars: abundances
stars: activity
stars: AGB and post-AGB
stars: atmospheres
(stars:) binaries *(including multiple)*: close
(stars:) binaries: eclipsing
(stars:) binaries: general
(stars:) binaries: spectroscopic
(stars:) binaries: symbiotic
(stars:) binaries: visual
stars: blue stragglers
stars: carbon
stars: chemically peculiar
stars: chromospheres
(stars:) circumstellar matter
stars: coronae
stars: distances
stars: early-type
stars: emission-line, Be
stars: evolution
stars: flare
stars: formation
stars: fundamental parameters *(classification, colours, luminosities, masses, radii, temperatures, etc.)*
stars: general
stars: giant
(stars:) Hertzsprung–Russell (HR) diagram
stars: horizontal branch
stars: imaging
stars: individual:...
stars: interiors
stars: kinematics
stars: late-type
stars: low-mass, brown dwarfs
stars: luminosity function, mass function
stars: magnetic fields
stars: mass-loss
stars: neutron
(stars:) novae, cataclysmic variables
stars: oscillations *(including pulsations)*
stars: peculiar *(except chemically peculiar)*
(stars:) planetary systems
stars: Population II
stars: pre-main-sequence
(stars:) pulsars: general
(stars:) **pulsars: individual:...**
stars: rotation
stars: statistics
(stars:) subdwarfs
(stars:) supergiants
(stars:) supernovae: general
(stars:) **supernovae: individual:...**
(stars: variables:) Cepheids
(stars: variables:) δ Scuti
stars: variables: other
(stars:) white dwarfs
stars: Wolf–Rayet

Interstellar medium (ISM), nebulae

ISM: abundances
ISM: atoms
ISM: bubbles
ISM: clouds
(ISM:) cosmic rays
(ISM:) dust, extinction
ISM: general
ISM: globules
(ISM:) H II regions
ISM: individual:...
(except planetary nebulae)
ISM: jets and outflows
ISM: kinematics and dynamics
ISM: magnetic fields
ISM: molecules
(ISM:) planetary nebulae: general
(ISM:) **planetary nebulae: individual:...**
(ISM:) reflection nebulae
ISM: structure
(ISM:) supernova remnants

The Galaxy

Galaxy: abundances
Galaxy: centre
Galaxy: evolution
Galaxy: formation
Galaxy: fundamental parameters
Galaxy: general
(Galaxy:) globular clusters: general
(Galaxy:) **globular clusters: individual:...**
Galaxy: halo
Galaxy: kinematics and dynamics
(Galaxy:) open clusters and associations: general
(Galaxy:) **open clusters and associations: individual:...**
(Galaxy:) solar neighbourhood
Galaxy: stellar content
Galaxy: structure

Galaxies

galaxies: abundances
galaxies: active
(galaxies:) BL Lacertae objects: general
(galaxies:) **BL Lacertae objects: individual:...**
galaxies: clustering
galaxies: clusters: individual:...
galaxies: compact
(galaxies:) cooling flows
galaxies: distances and redshifts
galaxies: elliptical and lenticular, cD
galaxies: evolution
galaxies: formation
galaxies: fundamental parameters
(classification, colours, luminosities, masses, radii, etc.)
galaxies: general
galaxies: individual:...
galaxies: interactions
(galaxies:) intergalactic medium
galaxies: ISM
galaxies: irregular
galaxies: jets
galaxies: kinematics and dynamics
(galaxies:) Local Group
galaxies: luminosity function, mass function
(galaxies:) Magellanic Clouds
galaxies: magnetic fields
galaxies: nuclei
galaxies: peculiar
galaxies: photometry
(galaxies:) quasars: absorption lines
(galaxies:) quasars: emission lines
(galaxies:) quasars: general
(galaxies:) **quasars: individual:...**
galaxies: Seyfert
galaxies: spiral
galaxies: starburst
galaxies: star clusters
galaxies: stellar content
galaxies: structure

Cosmology

(cosmology:) cosmic microwave background
cosmology: miscellaneous
cosmology: observations
cosmology: theory
(cosmology:) dark matter
(cosmology:) diffuse radiation
(cosmology:) distance scale
(cosmology:) early Universe
(cosmology:) gravitational lensing
(cosmology:) large-scale structure of Universe

Sources as a function of wavelength

gamma-rays: bursts
gamma-rays: observations
gamma-rays: theory
infrared: galaxies
infrared: general
infrared: ISM: continuum
infrared: ISM: lines and bands
infrared: Solar system
infrared: stars
radio continuum: galaxies
radio continuum: general
radio continuum: ISM
radio continuum: Solar system
radio continuum: stars
radio lines: galaxies
radio lines: general
radio lines: ISM
radio lines: Solar system
radio lines: stars
ultraviolet: galaxies
ultraviolet: general
ultraviolet: ISM
ultraviolet: Solar system
ultraviolet: stars
X-rays: bursts
X-rays: galaxies
X-rays: general
X-rays: ISM
X-rays: stars

SUBJECT INDEX

Physical data and processes

Variable smoothing lengths and energy conservation in smoothed particle hydrodynamics (Nelson R.P., Papaloizou J.C.B.), **270,** 1
Resonance capture and the formation of the outer planets (Beaugé C., Aarseth S.J., Ferraz-Mello S.), **270,** 21
PKS 1209−51/52: a supernova remnant with a well-defined magnetic field (Milne D.K., Haynes R.F.), **270,** 106
Stability of an isothermal magnetized accretion disc with radial viscous force (Yu W., Yang L., Wu X.), **270,** 131
Quasi-global, linear analysis of a magnetized disc (Gammie C.F., Balbus S.A.), **270,** 138
Observations of interaction between cluster gas and the radio lobes of Cygnus A (Carilli C.L., Perley R.A., Harris D.E.), **270,** 173
Relativistic dynamical friction in the weak scattering limit (Syer D.), **270,** 205
Imaging polarimetry of the blue compact galaxy NGC 3125 (Alton P.B., Draper P.W., Gledhill T.M., Stockdale D.P., Scarrott S.M., Wolstencroft R.D.), **270,** 238
Velocity profiles of galaxies with claimed black holes – III. Observations and models for M87 (van der Marel R.P.), **270,** 271
Observations and dynamical modelling of the E4 galaxy NGC 2974: evidence for an embedded stellar disc (Cinzano P., van der Marel R.P.), **270,** 325
Self-similar spherical accretion in the gravitational field of a constant point mass (Kazhdan Ya.M., Murzina M.), **270,** 351
Global VLBI observations of the gravitational lens system 0957+561 A,B (Garrett M.A., Calder R.J., Porcas R.W., King L.J., Walsh D., Wilkinson P.N.), **270,** 457
An analytic examination of the influence of radial viscosity on the stability of a polytropic accretion disc (Wu X., Yang L., Yang P.), **270,** 465
A model of gamma-ray bursts (Thompson C.), **270,** 480
The chemistry of phosphorus in hot molecular cores (Charnley S.B., Millar T.J.), **270,** 570
Resonant oscillations and tidal heating in coalescing binary neutron stars (Lai D.), **270,** 611
Dust–radiation universes: stability analysis (Bruni M., Piotrkowska K.), **270,** 630
A high-redshift, ultrasoft X-ray AGN (Puchnarewicz E.M., Mason K.O., Córdova F.A.), **270,** 663
Uniqueness of the Alfvén singularity in a relativistic pulsar wind (Li J., Melrose D.B.), **270,** 687
Dynamics of gas near the Galactic Centre (Jenkins A., Binney J.), **270,** 703
On the theory of MHD winds from a magnetosphere of axisymmetric rotators (Bogovalov S.V.), **270,** 721
Colours, line strengths and stellar kinematics of NGC 2663 and 5018 (Carollo C.M., Danziger I.J.), **270,** 743
Bloated stars as AGN broad-line clouds: the emission-line spectrum (Alexander T., Netzer H.), **270,** 781
The cataclysmic variable HX Pegasi=PG 2337 + 123: caught on the rise to maximum (Ringwald F.A.), **270,** 804
Dynamical instability of standing shock waves in adiabatic accretion flows and wind flows (Nakayama K.), **270,** 871
Instability of close triple systems with coplanar initial doubly circular motion (Kiseleva L.G., Eggleton P.P., Orlov V.V.), **270,** 936
Circumstellar envelope structure of late-type stars as revealed by MERLIN observations of 22-GHz water masers (Yates J.A., Cohen R.J.), **270,** 958
Obscuring tori and orientation effects in QSO spectra (Zwitter T., Calvani M.), **270,** L27
On sonic transitions in astrophysical flows (Williams R.J.R., Dyson J.E.), **270,** L52

Astronomical instrumentation, methods and techniques

Resonance capture and the formation of the outer planets (Beaugé C., Aarseth S.J., Ferraz-Mello S.), **270,** 21
The inverse variance method for assessing measurements of d*P*/d*t* and equal-period spacings in rapid variable stars (O'Donoghue D.), **270,** 222
Statistics of *N*-body simulations – II. Equal masses after core collapse (Giersz M., Heggie D.C.), **270,** 298
Single station identification of radar meteor shower activity: the June Librids in 1992 (Elford W.G., Cervera M.A., Steel D.I.), **270,** 401
On improving the calibration of millimetre and submillimetre photometry at the James Clerk Maxwell Telescope (Stevens J.A., Robson E.I.), **270,** L75

Astrometry and celestial mechanics

Variable smoothing lengths and energy conservation in smoothed particle hydrodynamics (Nelson R.P., Papaloizou J.C.B.), **270,** 1
Resonance capture and the formation of the outer planets (Beaugé C., Aarseth S.J., Ferraz-Mello S.), **270,** 21
Relativistic dynamical friction in the weak scattering limit (Syer D.), **270,** 205
Statistics of *N*-body simulations – II. Equal masses after core collapse (Giersz M., Heggie D.C.), **270,** 298
The cometary hypothesis of the K/T mass extinctions (Wickramasinghe N.C., Wallis M.K.), **270,** 420
Density of matter in the Galactic disc (Flynn C., Fuchs B.), **270,** 471
Instability of close triple systems with coplanar initial doubly circular motion (Kiseleva L.G., Eggleton P.P., Orlov V.V.), **270,** 936

The Sun

Corrigendum; Low-*l* *p*-mode solar eigenfrequency measurements from the Birmingham Network (Elsworth Y., Howe R., Isaak G.R., McLeod C.P., New R.), **270,** 720
On the theory of MHD winds from a magnetosphere of axisymmetric rotators (Bogovalov S.V.), **270,** 721
Accurate frequencies of polytropic models (Christensen-Dalsgaard J., Mullan D.J.), **270,** 921

Solar system

Resonance capture and the formation of the outer planets (Beaugé C., Aarseth S.J., Ferraz-Mello S.), **270,** 21
Single station identification of radar meteor shower activity: the June Librids in 1992 (Elford W.G., Cervera M.A., Steel D.I.), **270,** 401
The cometary hypothesis of the K/T mass extinctions (Wickramasinghe N.C., Wallis M.K.), **270,** 420

Stars

Star formation in differentially rotating galactic discs: the physics of self-propagation (Palouš J., Tenorio-Tagle G., Franco J.), **270,** 75
The detection of cyclic frequency variability in the rapidly oscillating Ap star HD 134214 (Kreidl T.J., Kurtz D.W., Schneider H., van Wyk F., Roberts G., Marang F., Birch P.V.), **270,** 115
A possible criterion for envelope ejection in asymptotic giant branch or first giant branch stars (Han Z., Podsiadlowski P., Eggleton P.P.), **270,** 121
BD+22°4409: a rapidly rotating, low-mass member of the Local Association (Jeffries R.D., Byrne P.B., Doyle J.G., Anders G.J., James D.J., Lanzafame A.C.), **270,** 153
A deep radio search for the counterpart to the enigmatic X-ray pulsar 1E2259 + 586 (Coe M.J., Jones L.R., Lehto H.), **270,** 178
Hα emission stars in the Circinus region (Mikami T., Ogura K.), **270,** 199
The inverse variance method for assessing measurements of d*P*/d*t* and equal-period spacings in rapid variable stars (O'Donoghue D.), **270,** 222

Intrinsic colour indices of OB supergiants, giants and dwarfs in the *UBVRIJHKLM* system (Wegner W.), **270,** 229
Infrared observations of RCB stars in the LMC (Glass I.S., Lawson W.A., Laney C.D.), **270,** 347
Self-similar spherical accretion in the gravitational field of a constant point mass (Kazhdan Ya.M., Murzina M.), **270,** 351
Variability of η Carinae (Whitelock P.A., Feast M.W., Koen C., Roberts G., Carter B.S.), **270,** 364
Composite spectra. Paper 6: 9 Cygni (Griffin R. & R., Beggs D.W.), **270,** 409
Optical flaring on RS CVn stars: the case of II Peg in 1992 September (Byrne P.B., Lanzafame A.C., Sarro L.M., Ryans R.), **270,** 427
Unusual variability among early F-type stars: HD 224638 and HD 224945 (Mantegazza L., Poretti E., Zerbi F.M.), **270,** 439
Direct optical observations of the secondary component of UU Sagittae (Bell S.A., Pollacco D.L., Hilditch R.W.), **270,** 449
Density of matter in the Galactic disc (Flynn C., Fuchs B.), **270,** 471
A model of gamma-ray bursts (Thompson C.), **270,** 480
A *ROSAT* survey of hot DA white dwarfs in non-interacting binary systems (Barstow M.A., Holberg J.B., Fleming T.A., Marsh M.C., Koester D., Wonnacott D.), **270,** 499
Extreme-ultraviolet spectrophotometry of HD 15638 and HR 8210 (IK Peg) (Barstow M.A., Holberg J.B., Koester D.), **270,** 516
Optical and UV spectroscopy towards stars in the direction of the Cohen high-velocity H I stream (Kemp S.N., Bates B., Dufton P.L., Keenan F.P., Montgomery A.S.), **270,** 597
Resonant oscillations and tidal heating in coalescing binary neutron stars (Lai D.), **270,** 611
The discovery of RE 1307 + 535: the shortest period AM Her system (Osborne J.P., Beardmore A.P., Wheatley P.J., Hakala P., Watson M.G., Mason K.O., Hassall B.J.M., King A.R.), **270,** 650
The pure dipole pulsation mode of the rapidly oscillating Ap star α Cir: determination of the rotation period, and evidence for frequency variability (Kurtz D.W., Sullivan D.J., Martinez P., Tripe P.), **270,** 674
Uniqueness of the Alfvén singularity in a relativistic pulsar wind (Li J., Melrose D.B.), **270,** 687
ROSAT observations of AN UMa and MR Ser: the status of the soft X-ray excess in AM Her stars (Ramsay G., Mason K.O., Cropper M., Watson M.G., Clayton K.L.), **270,** 692
On the theory of MHD winds from a magnetosphere of axisymmetric rotators (Bogovalov S.V.), **270,** 721
Evaporation of brown dwarfs in AGB envelopes (Harpaz A., Soker N.), **270,** 734
On the rate of orbital angular momentum loss of synchronously rotating magnetic cataclysmic variables (Li J., Wu K., Wickramasinghe D.T.), **270,** 769
Influences of wide binaries on the structures of planetary nebulae (Soker N.), **270,** 774
Bloated stars as AGN broad-line clouds: the emission-line spectrum (Alexander T., Netzer H.), **270,** 781
The cataclysmic variable HX Pegasi=PG 2337 + 123: caught on the rise to maximum (Ringwald F.A.), **270,** 804
The MOST Galactic Centre Survey – IV. Supernova remnant distribution, small-diameter supernova remnants, and supernova remnant–pulsar coincidences (Gray A.D.), **270,** 861
Dynamical instability of standing shock waves in adiabatic accretion flows and wind flows (Nakayama K.), **270,** 871
γ Doradus: evidence for a new class of pulsating star (Balona L.A., Krisciunas K., Cousins A.W.J.), **270,** 905
The 53 Per stars HR 3562 and HR 3600 (Balona L.A.), **270,** 914
Accurate frequencies of polytropic models (Christensen-Dalsgaard J., Mullan D.J.), **270,** 921
Instability of close triple systems with coplanar initial doubly circular motion (Kiseleva L.G., Eggleton P.P., Orlov V.V.), **270,** 936
Circumstellar envelope structure of late-type stars as revealed by MERLIN observations of 22-GHz water masers (Yates J.A., Cohen R.J.), **270,** 958
Nebulosity around the S star RZ Sgr (Whitelock P.), **270,** L15
Gamma-line radiation from stellar winds in the Orion complex: a test for the theory of cosmic ray origin (Nath B.B., Biermann P.L.), **270,** L33
A limit on the depletion of deuterium (Edmunds M.G.), **270,** L37
A new candidate brown dwarf from an infrared survey (Jones H.R.A., Miller L., Glazebrook K.), **270,** L47
On sonic transitions in astrophysical flows (Williams R.J.R., Dyson J.E.), **270,** L52
Discovery of the optical counterpart to the *CGRO* transient GRO J1008−57 (Coe M.J., Roche P., Everall C., Fabregat J., Buckley D.A.H., Smith R.C., Reynolds A.P., Jupp I.D., MacGillivray H.T.), **270,** L57

Interstellar medium (ISM), nebulae

Evolution of supernova remnants generated by moving massive stars (Brighenti F., D'Ercole A.), **270,** 65
Star formation in differentially rotating galactic discs: the physics of self-propagation (Palouš J., Tenorio-Tagle G., Franco J.), **270,** 75
PKS 1209−51/52: a supernova remnant with a well-defined magnetic field (Milne D.K., Haynes R.F.), **270,** 106
A possible criterion for envelope ejection in asymptotic giant branch or first giant branch stars (Han Z., Podsiadlowski P., Eggleton P.P.), **270,** 121
The origin of the Magellanic Stream (Moore B., Davis M.), **270,** 209
Intrinsic colour indices of OB supergiants, giants and dwarfs in the *UBVRIJHKLM* system (Wegner W.), **270,** 229
Variability of η Carinae (Whitelock P.A., Feast M.W., Koen C., Roberts G., Carter B.S.), **270,** 364
Measurements of dust extinction in highly inclined spiral galaxies (Jansen R.A., Knapen J.H., Beckman J.E., Peletier R.F., Hes R.), **270,** 373
Direct optical observations of the secondary component of UU Sagittae (Bell S.A., Pollacco D.L., Hilditch R.W.), **270,** 449
The chemistry of phosphorus in hot molecular cores (Charnley S.B., Millar T.J.), **270,** 570
Optical and UV spectroscopy towards stars in the direction of the Cohen high-velocity H I stream (Kemp S.N., Bates B., Dufton P.L., Keenan F.P., Montgomery A.S.), **270,** 597
Dynamics of gas near the Galactic Centre (Jenkins A., Binney J.), **270,** 703
Influences of wide binaries on the structures of planetary nebulae (Soker N.), **270,** 774
The MOST Galactic Centre Survey – II. New results on published supernova remnants and G2.4 + 1.4 (Gray A.D.), **270,** 835
The MOST Galactic Centre Survey – III. Images of new candidate supernova remants (Gray A.D.), **270,** 847
The MOST Galactic Centre Survey – IV. Supernova remnant distribution, small-diameter supernova remnants, and supernova remnant–pulsar coincidences (Gray A.D.), **270,** 861
Nebulosity around the S star RZ Sgr (Whitelock P.), **270,** L15
Gamma-line radiation from stellar winds in the Orion complex: a test for the theory of cosmic ray origin (Nath B.B., Biermann P.L.), **270,** L33
A limit on the depletion of deuterium (Edmunds M.G.), **270,** L37
On sonic transitions in astrophysical flows (Williams R.J.R., Dyson J.E.), **270,** L52

The Galaxy

BD+22°4409: a rapidly rotating, low-mass member of the Local Association (Jeffries R.D., Byrne P.B., Doyle J.G., Anders G.J., James D.J., Lanzafame A.C.), **270,** 153
Hα emission stars in the Circinus region (Mikami T., Ogura K.), **270,** 199
The origin of the Magellanic Stream (Moore B., Davis M.), **270,** 209
Statistics of *N*-body simulations – II. Equal masses after core collapse (Giersz M., Heggie D.C.), **270,** 298
Density of matter in the Galactic disc (Flynn C., Fuchs B.), **270,** 471
Dynamics of gas near the Galactic Centre (Jenkins A., Binney J.), **270,** 703
The MOST Galactic Centre Survey – I. Survey images and results on Sgr A–E (Gray A.D.), **270,** 822
The MOST Galactic Centre Survey – II. New results on published supernova remnants and G2.4 + 1.4 (Gray A.D.), **270,** 835

The MOST Galactic Centre Survey – III. Images of new candidate supernova remants (Gray A.D.), **270,** 847
The MOST Galactic Centre Survey – IV. Supernova remnant distribution, small-diameter supernova remnants, and supernova remnant–pulsar coincidences (Gray A.D.), **270,** 861

Galaxies

Element abundances in blue compact galaxies (Marconi G., Matteucci F., Tosi M.), **270,** 35
Radio-continuum observations of the central regions of Sérsic–Pastoriza galaxies (Saikia D.J., Pedlar A., Unger S.W., Axon D.J.), **270,** 46
Star formation in differentially rotating galactic discs: the physics of self-propagation (Palouš J., Tenorio-Tagle G., Franco J.), **270,** 75
Radial velocity distribution of the galaxies in the Puppis 'hidden' concentration behind the Milky Way (Yamada T., Tomita A., Saitō M., Chamaraux P., Kazés I.), **270,** 93
Observations of interaction between cluster gas and the radio lobes of Cygnus A (Carilli C.L., Perley R.A., Harris D.E.), **270,** 173
A comparison of the evolution of density fields in perturbation theory and numerical simulations – I. Non-linear evolution of the power spectrum (Baugh C.M., Efstathiou G.), **270,** 183
The origin of the Magellanic Stream (Moore B., Davis M.), **270,** 209
Violent star formation in unseen galaxies? (Chernin A.D., Efremov Yu.N.), **270,** 235
Imaging polarimetry of the blue compact galaxy NGC 3125 (Alton P.B., Draper P.W., Gledhill T.M., Stockdale D.P., Scarrott S.M., Wolstencroft R.D.), **270,** 238
Gravitational lensing of distant field galaxies by rich clusters – I. Faint galaxy redshift distributions (Smail I., Ellis R.S., Fitchett M.J.), **270,** 245
Velocity profiles of galaxies with claimed black holes – III. Observations and models for M87 (van der Marel R.P.), **270,** 271
Observations and dynamical modelling of the E4 galaxy NGC 2974: evidence for an embedded stellar disc (Cinzano P., van der Marel R.P.), **270,** 325
Infrared photometry of blazars: eight years of observations (Litchfield S.J., Robson E.I., Stevens J.A.), **270,** 341
Infrared observations of RCB stars in the LMC (Glass I.S., Lawson W.A., Laney C.D.), **270,** 347
Measurements of dust extinction in highly inclined spiral galaxies (Jansen R.A., Knapen J.H., Beckman J.E., Peletier R.F., Hes R.), **270,** 373
Alignment and morphology of elliptical galaxies: the influence of the cluster tidal field (Ciotti L., Dutta S.N.), **270,** 390
A new interpretation of the aligned structures of the $z \approx 1$ radio galaxy 3C 356 (Lacy M., Rawlings S.), **270,** 431
Global VLBI observations of the gravitational lens system 0957+561 A,B (Garrett M.A., Calder R.J., Porcas R.W., King L.J., Walsh D., Wilkinson P.N.), **270,** 457
Dynamics and stellar populations in early-type galaxies (Carollo C.M., Danziger I.J.), **270,** 523
Infrared spectroscopy of high-redshift quasars (Baker A.C., Carswell R.F., Bailey J.A., Espey B.R., Smith M.G., Ward M.J.), **270,** 575
Multifrequency monitoring of the Seyfert 1 galaxy NGC 4593 – I. Isolating the nuclear emission (Santos-Lleó M., Clavel J., Barr P., Glass I.S., Pelat D., Peterson B.M., Reichert G.), **270,** 580
Dust–radiation universes: stability analysis (Bruni M., Piotrkowska K.), **270,** 630
The submillimetre structure of the starburst nucleus in M82: a diffraction-limited 450-μm map (Hughes D.H., Gear W.K., Robson E.I.), **270,** 641
A high-redshift, ultrasoft X-ray AGN (Puchnarewicz E.M., Mason K.O., Córdova F.A.), **270,** 663
Colours, line strengths and stellar kinematics of NGC 2663 and 5018 (Carollo C.M., Danziger I.J.), **270,** 743
Bloated stars as AGN broad-line clouds: the emission-line spectrum (Alexander T., Netzer H.), **270,** 781
A survey of galaxy redshifts from low-resolution slitless spectra: suggestion of large-scale structures at $z \sim 0.1$ (Beauchemin M., Borra E.F.), **270,** 811
The extragalactic nature of PP 31 (Parsamian E.S., Guichard J., Mújica R.), **270,** 893
On the evidence against the unified scheme for radio galaxies and quasars (Saikia D.J., Kulkarni V.K.), **270,** 897
The UK Deep and Medium Surveys with *ROSAT*: log*N*–log*S* relation (Branduardi-Raymont G., Mason K.O., Warwick R.S., Carrera F.J., Graffagnino V.G., Mittaz J.P.D., Puchnarewicz E.M., Smith P.J., Barber C.R., Pounds K.A., Stewart G.C., McHardy I.M., Jones L.R., Merrifield M.R., Fabian A.C., McMahon R.G., Ward M.J., George I.M., Jones M.H., Lawrence A., Rowan-Robinson M.), **270,** 947
Zwicky 3146: the most massive cooling flow? (Edge A.C., Fabian A.C., Allen S.W., Crawford C.S., White D.A., Böhringer H., Voges W.), **270,** L1
Spectroscopy of luminous *IRAS* galaxies at 1.25 μm (Puxley P.J., Lumsden S.L., Brand P.W.J.L., Doyon R.), **270,** L7
The unified Seyfert scheme and the origin of the cosmic X-ray background (Madau P., Ghisellini G., Fabian A.C.), **270,** L17
A new model for the formation of kinematically decoupled cores in elliptical galaxies (Hau G.K.T., Thomson R.C.), **270,** L23
Obscuring tori and orientation effects in QSO spectra (Zwitter T., Calvani M.), **270,** L27
A limit on the depletion of deuterium (Edmunds M.G.), **270,** L37
H I observations of the new Sagittarius dwarf (Koribalski B., Johnston S., Otrupcek R.), **270,** L43
An unusual high-redshift object discovered with the *Hubble Space Telescope*: peculiar starburst galaxy or new gravitational lens? (Glazebrook K., Lehár J., Ellis R., Aragón-Salamanca A., Griffiths R.), **270,** L63
Formation of quasars at high redshift (Katz N., Quinn T., Bertschinger E., Gelb J.M.), **270,** L71

Cosmology

A comparison of the evolution of density fields in perturbation theory and numerical simulations – I. Non-linear evolution of the power spectrum (Baugh C.M., Efstathiou G.), **270,** 183
The origin of the Magellanic Stream (Moore B., Davis M.), **270,** 209
Gravitational lensing of distant field galaxies by rich clusters – I. Faint galaxy redshift distributions (Smail I., Ellis R.S., Fitchett M.J.), **270,** 245
Global VLBI observations of the gravitational lens system 0957+561 A,B (Garrett M.A., Calder R.J., Porcas R.W., King L.J., Walsh D., Wilkinson P.N.), **270,** 457
Density of matter in the Galactic disc (Flynn C., Fuchs B.), **270,** 471
Dust–radiation universes: stability analysis (Bruni M., Piotrkowska K.), **270,** 630
A survey of galaxy redshifts from low-resolution slitless spectra: suggestion of large-scale structures at $z \sim 0.1$ (Beauchemin M., Borra E.F.), **270,** 811
The UK Deep and Medium Surveys with *ROSAT*: log*N*–log*S* relation (Branduardi-Raymont G., Mason K.O., Warwick R.S., Carrera F.J., Graffagnino V.G., Mittaz J.P.D., Puchnarewicz E.M., Smith P.J., Barber C.R., Pounds K.A., Stewart G.C., McHardy I.M., Jones L.R., Merrifield M.R., Fabian A.C., McMahon R.G., Ward M.J., George I.M., Jones M.H., Lawrence A., Rowan-Robinson M.), **270,** 947
The unified Seyfert scheme and the origin of the cosmic X-ray background (Madau P., Ghisellini G., Fabian A.C.), **270,** L17
A limit on the depletion of deuterium (Edmunds M.G.), **270,** L37
An unusual high-redshift object discovered with the *Hubble Space Telescope*: peculiar starburst galaxy or new gravitational lens? (Glazebrook K., Lehár J., Ellis R., Aragón-Salamanca A., Griffiths R.), **270,** L63

Sources as a function of wavelength

Radio-continuum observations of the central regions of Sérsic–Pastoriza galaxies (Saikia D.J., Pedlar A., Unger S.W., Axon D.J.), **270,** 46
Radial velocity distribution of the galaxies in the Puppis 'hidden' concentration behind the Milky Way (Yamada T., Tomita A., Saitō M., Chamaraux P., Kazés I.), **270,** 93
PKS 1209−51/52: a supernova remnant with a well-defined magnetic field (Milne D.K., Haynes R.F.), **270,** 106

Observations of interaction between cluster gas and the radio lobes of Cygnus A (Carilli C.L., Perley R.A., Harris D.E.), **270,** 173
A deep radio search for the counterpart to the enigmatic X-ray pulsar 1E2259 + 586 (Coe M.J., Jones L.R., Lehto H.), **270,** 178
Intrinsic colour indices of OB supergiants, giants and dwarfs in the *UBVRIJHKLM* system (Wegner W.), **270,** 229
Infrared photometry of blazars: eight years of observations (Litchfield S.J., Robson E.I., Stevens J.A.), **270,** 341
Variability of η Carinae (Whitelock P.A., Feast M.W., Koen C., Roberts G., Carter B.S.), **270,** 364
Measurements of dust extinction in highly inclined spiral galaxies (Jansen R.A., Knapen J.H., Beckman J.E., Peletier R.F., Hes R.), **270,** 373
A new interpretation of the aligned structures of the $z \approx 1$ radio galaxy 3C 356 (Lacy M., Rawlings S.), **270,** 431
Global VLBI observations of the gravitational lens system 0957+561 A,B (Garrett M.A., Calder R.J., Porcas R.W., King L.J., Walsh D., Wilkinson P.N.), **270,** 457
A model of gamma-ray bursts (Thompson C.), **270,** 480
A *ROSAT* survey of hot DA white dwarfs in non-interacting binary systems (Barstow M.A., Holberg J.B., Fleming T.A., Marsh M.C., Koester D., Wonnacott D.), **270,** 499
Extreme-ultraviolet spectrophotometry of HD 15638 and HR 8210 (IK Peg) (Barstow M.A., Holberg J.B., Koester D.), **270,** 516
Infrared spectroscopy of high-redshift quasars (Baker A.C., Carswell R.F., Bailey J.A., Espey B.R., Smith M.G., Ward M.J.), **270,** 575
Multifrequency monitoring of the Seyfert 1 galaxy NGC 4593 – I. Isolating the nuclear emission (Santos-Lleó M., Clavel J., Barr P., Glass I.S., Pelat D., Peterson B.M., Reichert G.), **270,** 580
Optical and UV spectroscopy towards stars in the direction of the Cohen high-velocity H I stream (Kemp S.N., Bates B., Dufton P.L., Keenan F.P., Montgomery A.S.), **270,** 597
The submillimetre structure of the starburst nucleus in M82: a diffraction-limited 450-μm map (Hughes D.H., Gear W.K., Robson E.I.), **270,** 641
The discovery of RE 1307 + 535: the shortest period AM Her system (Osborne J.P., Beardmore A.P., Wheatley P.J., Hakala P., Watson M.G., Mason K.O., Hassall B.J.M., King A.R.), **270,** 650
A high-redshift, ultrasoft X-ray AGN (Puchnarewicz E.M., Mason K.O., Córdova F.A.), **270,** 663
ROSAT observations of AN UMa and MR Ser: the status of the soft X-ray excess in AM Her stars (Ramsay G., Mason K.O., Cropper M., Watson M.G., Clayton K.L.), **270,** 692
Dynamics of gas near the Galactic Centre (Jenkins A., Binney J.), **270,** 703
The MOST Galactic Centre Survey – I. Survey images and results on Sgr A–E (Gray A.D.), **270,** 822
The MOST Galactic Centre Survey – II. New results on published supernova remnants and G2.4 + 1.4 (Gray A.D.), **270,** 835
The MOST Galactic Centre Survey – III. Images of new candidate supernova remants (Gray A.D.), **270,** 847
The MOST Galactic Centre Survey – IV. Supernova remnant distribution, small-diameter supernova remnants, and supernova remnant–pulsar coincidences (Gray A.D.), **270,** 861
On the evidence against the unified scheme for radio galaxies and quasars (Saikia D.J., Kulkarni V.K.), **270,** 897
The UK Deep and Medium Surveys with *ROSAT*: log*N*–log*S* relation (Branduardi-Raymont G., Mason K.O., Warwick R.S., Carrera F.J., Graffagnino V.G., Mittaz J.P.D., Puchnarewicz E.M., Smith P.J., Barber C.R., Pounds K.A., Stewart G.C., McHardy I.M., Jones L.R., Merrifield M.R., Fabian A.C., McMahon R.G., Ward M.J., George I.M., Jones M.H., Lawrence A., Rowan-Robinson M.), **270,** 947
Circumstellar envelope structure of late-type stars as revealed by MERLIN observations of 22-GHz water masers (Yates J.A., Cohen R.J.), **270,** 958
Zwicky 3146: the most massive cooling flow? (Edge A.C., Fabian A.C., Allen S.W., Crawford C.S., White D.A., Böhringer H., Voges W.), **270,** L1
Spectroscopy of luminous *IRAS* galaxies at 1.25 μm (Puxley P.J., Lumsden S.L., Brand P.W.J.L., Doyon R.), **270,** L7
The unified Seyfert scheme and the origin of the cosmic X-ray background (Madau P., Ghisellini G., Fabian A.C.), **270,** L17
Gamma-line radiation from stellar winds in the Orion complex: a test for the theory of cosmic ray origin (Nath B.B., Biermann P.L.), **270,** L33
H I observations of the new Sagittarius dwarf (Koribalski B., Johnston S., Otrupcek R.), **270,** L43
A new candidate brown dwarf from an infrared survey (Jones H.R.A., Miller L., Glazebrook K.), **270,** L47
Discovery of the optical counterpart to the *CGRO* transient GRO J1008−57 (Coe M.J., Roche P., Everall C., Fabregat J., Buckley D.A.H., Smith R.C., Reynolds A.P., Jupp I.D., MacGillivray H.T.), **270,** L57
On improving the calibration of millimetre and submillimetre photometry at the James Clerk Maxwell Telescope (Stevens J.A., Robson E.I.), **270,** L75

AUTHOR INDEX

Aarseth S.J. *see* Beaugé C.
Alexander T., Netzer H., Bloated stars as AGN broad-line clouds: the emission-line spectrum, **270,** 781
Allen S.W. *see* Edge A.C.
Alton P.B., Draper P.W., Gledhill T.M., Stockdale D.P., Scarrott S.M., Wolstencroft R.D., Imaging polarimetry of the blue compact galaxy NGC 3125, **270,** 238
Anders G.J. *see* Jeffries R.D.
Aragón-Salamanca A. *see* Glazebrook K.
Axon D.J. *see* Saikia D.J.

Bailey J.A. *see* Baker A.C.
Baker A.C., Carswell R.F., Bailey J.A., Espey B.R., Smith M.G., Ward M.J., Infrared spectroscopy of high-redshift quasars, **270,** 575
Balbus S.A. *see* Gammie C.F.
Balona L.A., Krisciunas K., Cousins A.W.J., γ Doradus: evidence for a new class of pulsating star, **270,** 905
Balona L.A., The 53 Per stars HR 3562 and HR 3600, **270,** 914
Barber C.R. *see* Branduardi-Raymont G.
Barr P. *see* Santos-Lleó M.
Barstow M.A., Holberg J.B., Fleming T.A., Marsh M.C., Koester D., Wonnacott D., A *ROSAT* survey of hot DA white dwarfs in non-interacting binary systems, **270,** 499
Barstow M.A., Holberg J.B., Koester D., Extreme-ultraviolet spectrophotometry of HD 15638 and HR 8210 (IK Peg), **270,** 516
Bates B. *see* Kemp S.N.
Baugh C.M., Efstathiou G., A comparison of the evolution of density fields in perturbation theory and numerical simulations – I. Non-linear evolution of the power spectrum, **270,** 183
Beardmore A.P. *see* Osborne J.P.
Beauchemin M., Borra E.F., A survey of galaxy redshifts from low-resolution slitless spectra: suggestion of large-scale structures at $z\sim0.1$, **270,** 811
Beaugé C., Aarseth S.J., Ferraz-Mello S., Resonance capture and the formation of the outer planets, **270,** 21
Beckman J.E. *see* Jansen R.A.
Beggs D.W. *see* Griffin R. & R.
Bell S.A., Pollacco D.L., Hilditch R.W., Direct optical observations of the secondary component of UU Sagittae, **270,** 449
Bertschinger E. *see* Katz N.
Biermann P.L. *see* Nath B.B.
Binney J. *see* Jenkins A.
Birch P.V. *see* Kreidl T.J.
Bogovalov S.V., On the theory of MHD winds from a magnetosphere of axisymmetric rotators, **270,** 721
Böhringer H. *see* Edge A.C.
Borra E.F. *see* Beauchemin M.
Brand P.W.J.L. *see* Puxley P.J.
Branduardi-Raymont G., Mason K.O., Warwick R.S., Carrera F.J., Graffagnino V.G., Mittaz J.P.D., Puchnarewicz E.M., Smith P.J., Barber C.R., Pounds K.A., Stewart G.C., M^{c}Hardy I.M., Jones L.R., Merrifield M.R., Fabian A.C., M^{c}Mahon R.G., Ward M.J., George I.M., Jones M.H., Lawrence A., Rowan-Robinson M., The UK Deep and Medium Surveys with *ROSAT*: log*N*–log*S* relation, **270,** 947
Brighenti F., D'Ercole A., Evolution of supernova remnants generated by moving massive stars, **270,** 65
Bruni M., Piotrkowska K., Dust–radiation universes: stability analysis, **270,** 630
Buckley D.A.H. *see* Coe M.J.
Byrne P.B. *see* Jeffries R.D.
Byrne P.B., Lanzafame A.C., Sarro L.M., Ryans R., Optical flaring on RS CVn stars: the case of II Peg in 1992 September, **270,** 427

Calder R.J. *see* Garrett M.A.
Calvani M. *see* Zwitter T.
Carilli C.L., Perley R.A., Harris D.E., Observations of interaction between cluster gas and the radio lobes of Cygnus A, **270,** 173
Carollo C.M., Danziger I.J., Colours, line strengths and stellar kinematics of NGC 2663 and 5018, **270,** 743
Carollo C.M., Danziger I.J., Dynamics and stellar populations in early-type galaxies, **270,** 523
Carrera F.J. *see* Branduardi-Raymont G.
Carswell R.F. *see* Baker A.C.
Carter B.S. *see* Whitelock P.A.
Cervera M.A. *see* Elford W.G.
Chamaraux P. *see* Yamada T.
Charnley S.B., Millar T.J., The chemistry of phosphorus in hot molecular cores, **270,** 570
Chernin A.D., Efremov Yu.N., Violent star formation in unseen galaxies?, **270,** 235
Christensen-Dalsgaard J., Mullan D.J., Accurate frequencies of polytropic models, **270,** 921
Cinzano P., van der Marel R.P., Observations and dynamical modelling of the E4 galaxy NGC 2974: evidence for an embedded stellar disc, **270,** 325
Ciotti L., Dutta S.N., Alignment and morphology of elliptical galaxies: the influence of the cluster tidal field, **270,** 390
Clavel J. *see* Santos-Lleó M.
Clayton K.L. *see* Ramsay G.
Coe M.J., Jones L.R., Lehto H., A deep radio search for the counterpart to the enigmatic X-ray pulsar 1E2259 + 586, **270,** 178
Coe M.J., Roche P., Everall C., Fabregat J., Buckley D.A.H., Smith R.C., Reynolds A.P., Jupp I.D., MacGillivray H.T., Discovery of the optical counterpart to the *CGRO* transient GRO J1008−57, **270,** L57
Cohen R.J. *see* Yates J.A.
Córdova F.A. *see* Puchnarewicz E.M.
Cousins A.W.J. *see* Balona L.A.
Crawford C.S. *see* Edge A.C.
Cropper M. *see* Ramsay G.

Danziger I.J. *see* Carollo C.M.
Davis M. *see* Moore B.
D'Ercole A. *see* Brighenti F.
Doyle J.G. *see* Jeffries R.D.
Doyon R. *see* Puxley P.J.
Draper P.W. *see* Alton P.B.
Dufton P.L. *see* Kemp S.N.
Dutta S.N. *see* Ciotti L.
Dyson J.E. *see* Williams R.J.R.

Edge A.C., Fabian A.C., Allen S.W., Crawford C.S., White D.A., Böhringer H., Voges W., Zwicky 3146: the most massive cooling flow?, **270,** L1
Edmunds M.G., A limit on the depletion of deuterium, **270,** L37
Efremov Yu.N. *see* Chernin A.D.
Efstathiou G. *see* Baugh C.M.
Eggleton P.P. *see* Han Z.; Kiseleva L.G.
Elford W.G., Cervera M.A., Steel D.I., Single station identification of radar meteor shower activity: the June Librids in 1992, **270,** 401
Ellis R. *see* Glazebrook K.
Ellis R.S. *see* Smail I.
Elsworth Y., Howe R., Isaak G.R., McLeod C.P., New R., Corrigendum: Low-l p-mode solar eigenfrequency measurements from the Birmingham Network, **270,** 720
Espey B.R. *see* Baker A.C.
Everall C. *see* Coe M.J.

Fabian A.C. *see* Branduardi-Raymont G.; Edge A.C.; Madau P.
Fabregat J. *see* Coe M.J.
Feast M.W. *see* Whitelock P.A.
Ferraz-Mello S. *see* Beaugé C.
Fitchett M.J. *see* Smail I.
Fleming T.A. *see* Barstow M.A.
Flynn C., Fuchs B., Density of matter in the Galactic disc, **270,** 471
Franco J. *see* Palouš J.
Fuchs B. *see* Flynn C.

Gammie C.F., Balbus S.A., Quasi-global, linear analysis of a magnetized disc, **270,** 138
Garrett M.A., Calder R.J., Porcas R.W., King L.J., Walsh D., Wilkinson P.N., Global VLBI observations of the gravitational lens system 0957+561 A,B, **270,** 457
Gear W.K. *see* Hughes D.H.
Gelb J.M. *see* Katz N.
George I.M. *see* Branduardi-Raymont G.
Ghisellini G. *see* Madau P.
Giersz M., Heggie D.C., Statistics of *N*-body simulations – II. Equal masses after core collapse, **270,** 298
Glass I.S. *see* Santos-Lleó M.
Glass I.S., Lawson W.A., Laney C.D., Infrared observations of RCB stars in the LMC, **270,** 347
Glazebrook K. *see* Jones H.R.A.
Glazebrook K., Lehár J., Ellis R., Aragón-Salamanca A., Griffiths R., An unusual high-redshift object discovered with the *Hubble Space Telescope*: peculiar starburst galaxy or new gravitational lens?, **270,** L63
Gledhill T.M. *see* Alton P.B.
Graffagnino V.G. *see* Branduardi-Raymont G.
Gray A.D., The MOST Galactic Centre Survey – I. Survey images and results on Sgr A–E, **270,** 822
Gray A.D., The MOST Galactic Centre Survey – II. New results on published supernova remnants and G2.4 + 1.4, **270,** 835
Gray A.D., The MOST Galactic Centre Survey – III. Images of new candidate supernova remants, **270,** 847
Gray A.D., The MOST Galactic Centre Survey – IV. Supernova remnant distribution, small-diameter supernova remnants, and supernova remnant–pulsar coincidences, **270,** 861
Griffin R. & R., Beggs D.W., Composite spectra. Paper 6: 9 Cygni, **270,** 409
Griffiths R. *see* Glazebrook K.
Guichard J. *see* Parsamian E.S.

Hakala P. *see* Osborne J.P.
Han Z., Podsiadlowski P., Eggleton P.P., A possible criterion for envelope ejection in asymptotic giant branch or first giant branch stars, **270,** 121
Harpaz A., Soker N., Evaporation of brown dwarfs in AGB envelopes, **270,** 734
Harris D.E. *see* Carilli C.L.
Hassall B.J.M. *see* Osborne J.P.
Hau G.K.T., Thomson R.C., A new model for the formation of kinematically decoupled cores in elliptical galaxies, **270,** L23
Haynes R.F. *see* Milne D.K.
Heggie D.C. *see* Giersz M.
Hes R. *see* Jansen R.A.
Hilditch R.W. *see* Bell S.A.
Holberg J.B. *see* Barstow M.A.
Howe R. *see* Elsworth Y.
Hughes D.H., Gear W.K., Robson E.I., The submillimetre structure of the starburst nucleus in M82: a diffraction-limited 450-μm map, **270,** 641

Isaak G.R. *see* Elsworth Y.

James D.J. *see* Jeffries R.D.
Jansen R.A., Knapen J.H., Beckman J.E., Peletier R.F., Hes R., Measurements of dust extinction in highly inclined spiral galaxies, **270,** 373
Jeffries R.D., Byrne P.B., Doyle J.G., Anders G.J., James D.J., Lanzafame A.C., BD+22°4409: a rapidly rotating, low-mass member of the Local Association, **270,** 153
Jenkins A., Binney J., Dynamics of gas near the Galactic Centre, **270,** 703
Johnston S. *see* Koribalski B.
Jones H.R.A., Miller L., Glazebrook K., A new candidate brown dwarf from an infrared survey, **270,** L47
Jones L.R. *see* Branduardi-Raymont G.; Coe M.J.
Jones M.H. *see* Branduardi-Raymont G.
Jupp I.D. *see* Coe M.J.

Katz N., Quinn T., Bertschinger E., Gelb J.M., Formation of quasars at high redshift, **270,** L71
Kazés I. *see* Yamada T.
Kazhdan Ya.M., Murzina M., Self-similar spherical accretion in the gravitational field of a constant point mass, **270,** 351
Keenan F.P. *see* Kemp S.N.
Kemp S.N., Bates B., Dufton P.L., Keenan F.P., Montgomery A.S., Optical and UV spectroscopy towards stars in the direction of the Cohen high-velocity H I stream, **270,** 597
King A.R. *see* Osborne J.P.
King L.J. *see* Garrett M.A.
Kiseleva L.G., Eggleton P.P., Orlov V.V., Instability of close triple systems with coplanar initial doubly circular motion, **270,** 936
Knapen J.H. *see* Jansen R.A.
Koen C. *see* Whitelock P.A.
Koester D. *see* Barstow M.A.
Koribalski B., Johnston S., Otrupcek R., H I observations of the new Sagittarius dwarf, **270,** L43
Kreidl T.J., Kurtz D.W., Schneider H., van Wyk F., Roberts G., Marang F., Birch P.V., The detection of cyclic frequency variability in the rapidly oscillating Ap star HD 134214, **270,** 115
Krisciunas K. *see* Balona L.A.
Kulkarni V.K. *see* Saikia D.J.
Kurtz D.W. *see* Kreidl T.J.
Kurtz D.W., Sullivan D.J., Martinez P., Tripe P., The pure dipole pulsation mode of the rapidly oscillating Ap star α Cir: determination of the rotation period, and evidence for frequency variability, **270,** 674

Lacy M., Rawlings S., A new interpretation of the aligned structures of the $z \approx 1$ radio galaxy 3C 356, **270,** 431
Lai D., Resonant oscillations and tidal heating in coalescing binary neutron stars, **270,** 611
Laney C.D. *see* Glass I.S.
Lanzafame A.C. *see* Byrne P.B.; Jeffries R.D.
Lawrence A. *see* Branduardi-Raymont G.
Lawson W.A. *see* Glass I.S.
Lehár J. *see* Glazebrook K.
Lehto H. *see* Coe M.J.
Li J., Melrose D.B., Uniqueness of the Alfvén singularity in a relativistic pulsar wind, **270,** 687
Li J., Wu K., Wickramasinghe D.T., On the rate of orbital angular momentum loss of synchronously rotating magnetic cataclysmic variables, **270,** 769
Litchfield S.J., Robson E.I., Stevens J.A., Infrared photometry of blazars: eight years of observations, **270,** 341
Lumsden S.L. *see* Puxley P.J.

MacGillivray H.T. *see* Coe M.J.
M^{c}Hardy I.M. *see* Branduardi-Raymont G.
McLeod C.P. *see* Elsworth Y.
M^{c}Mahon R.G. *see* Branduardi-Raymont G.
Madau P., Ghisellini G., Fabian A.C., The unified Seyfert scheme and the origin of the cosmic X-ray background, **270,** L17
Mantegazza L., Poretti E., Zerbi F.M., Unusual variability among early F-type stars: HD 224638 and HD 224945, **270,** 439
Marang F. *see* Kreidl T.J.
Marconi G., Matteucci F., Tosi M., Element abundances in blue compact galaxies, **270,** 35
Marsh M.C. *see* Barstow M.A.
Martinez P. *see* Kurtz D.W.
Mason K.O. *see* Branduardi-Raymont G.; Osborne J.P.; Puchnarewicz E.M.; Ramsay G.
Matteucci F. *see* Marconi G.
Melrose D.B. *see* Li J.
Merrifield M.R. *see* Branduardi-Raymont G.
Mikami T., Ogura K., Hα emission stars in the Circinus region, **270,** 199
Millar T.J. *see* Charnley S.B.
Miller L. *see* Jones H.R.A.
Milne D.K., Haynes R.F., PKS 1209−51/52: a supernova remnant with a well-defined magnetic field, **270,** 106
Mittaz J.P.D. *see* Branduardi-Raymont G.
Montgomery A.S. *see* Kemp S.N.
Moore B., Davis M., The origin of the Magellanic Stream, **270,** 209
Mújica R. *see* Parsamian E.S.
Mullan D.J. *see* Christensen-Dalsgaard J.
Murzina M. *see* Kazhdan Ya.M.

Nakayama K., Dynamical instability of standing shock waves in adiabatic accretion flows and wind flows, **270,** 871
Nath B.B., Biermann P.L., Gamma-line radiation from stellar winds in the Orion complex: a test for the theory of cosmic ray origin, **270,** L33
Nelson R.P., Papaloizou J.C.B., Variable smoothing lengths and energy conservation in smoothed particle hydrodynamics, **270,** 1
Netzer H. *see* Alexander T.
New R. *see* Elsworth Y.

O'Donoghue D., The inverse variance method for assessing measurements of d*P*/d*t* and equal-period spacings in rapid variable stars, **270,** 222
Ogura K. *see* Mikami T.
Orlov V.V. *see* Kiseleva L.G.
Osborne J.P., Beardmore A.P., Wheatley P.J., Hakala P., Watson M.G., Mason K.O., Hassall B.J.M., King A.R., The discovery of RE 1307 + 535: the shortest period AM Her system, **270,** 650
Otrupcek R. *see* Koribalski B.

Palouš J., Tenorio-Tagle G., Franco J., Star formation in differentially rotating galactic discs: the physics of self-propagation, **270,** 75
Papaloizou J.C.B. *see* Nelson R.P.
Parsamian E.S., Guichard J., Mújica R., The extragalactic nature of PP 31, **270,** 893
Pedlar A. *see* Saikia D.J.
Pelat D. *see* Santos-Lleó M.
Peletier R.F. *see* Jansen R.A.
Perley R.A. *see* Carilli C.L.
Peterson B.M. *see* Santos-Lleó M.
Piotrkowska K. *see* Bruni M.
Podsiadlowski P. *see* Han Z.
Pollacco D.L. *see* Bell S.A.
Porcas R.W. *see* Garrett M.A.
Poretti E. *see* Mantegazza L.
Pounds K.A. *see* Branduardi-Raymont G.
Puchnarewicz E.M. *see* Branduardi-Raymont G.
Puchnarewicz E.M., Mason K.O., Córdova F.A., A high-redshift, ultrasoft X-ray AGN, **270,** 663
Puxley P.J., Lumsden S.L., Brand P.W.J.L., Doyon R., Spectroscopy of luminous *IRAS* galaxies at 1.25 μm, **270,** L7

Quinn T. *see* Katz N.

Ramsay G., Mason K.O., Cropper M., Watson M.G., Clayton K.L., *ROSAT* observations of AN UMa and MR Ser: the status of the soft X-ray excess in AM Her stars, **270,** 692
Rawlings S. *see* Lacy M.
Reichert G. *see* Santos-Lleó M.
Reynolds A.P. *see* Coe M.J.
Ringwald F.A., The cataclysmic variable HX Pegasi=PG 2337 + 123: caught on the rise to maximum, **270,** 804
Roberts G. *see* Kreidl T.J.; Whitelock P.A.
Robson E.I. *see* Hughes D.H.; Litchfield S.J.; Stevens J.A.
Roche P. *see* Coe M.J.
Rowan-Robinson M. *see* Branduardi-Raymont G.
Ryans R. *see* Byrne P.B.

Saikia D.J., Kulkarni V.K., On the evidence against the unified scheme for radio galaxies and quasars, **270,** 897
Saikia D.J., Pedlar A., Unger S.W., Axon D.J., Radio-continuum observations of the central regions of Sérsic–Pastoriza galaxies, **270,** 46
Saitō M. *see* Yamada T.
Santos-Lleó M., Clavel J., Barr P., Glass I.S., Pelat D., Peterson B.M., Reichert G., Multifrequency monitoring of the Seyfert 1 galaxy NGC 4593 – I. Isolating the nuclear emission, **270,** 580
Sarro L.M. *see* Byrne P.B.
Scarrott S.M. *see* Alton P.B.
Schneider H. *see* Kreidl T.J.
Smail I., Ellis R.S., Fitchett M.J., Gravitational lensing of distant field galaxies by rich clusters – I. Faint galaxy redshift distributions, **270,** 245
Smith M.G. *see* Baker A.C.
Smith P.J. *see* Branduardi-Raymont G.
Smith R.C. *see* Coe M.J.
Soker N. *see* Harpaz A.
Soker N., Influences of wide binaries on the structures of planetary nebulae, **270,** 774
Steel D.I. *see* Elford W.G.
Stevens J.A. *see* Litchfield S.J.
Stevens J.A., Robson E.I., On improving the calibration of millimetre and submillimetre photometry at the James Clerk Maxwell Telescope, **270,** L75
Stewart G.C. *see* Branduardi-Raymont G.
Stockdale D.P. *see* Alton P.B.
Sullivan D.J. *see* Kurtz D.W.
Syer D., Relativistic dynamical friction in the weak scattering limit, **270,** 205

Tenorio-Tagle G. *see* Palouš J.
Thompson C., A model of gamma-ray bursts, **270,** 480
Thomson R.C. *see* Hau G.K.T.
Tomita A. *see* Yamada T.
Tosi M. *see* Marconi G.
Tripe P. *see* Kurtz D.W.

Unger S.W. *see* Saikia D.J.

van der Marel R.P. *see* Cinzano P.
van der Marel R.P., Velocity profiles of galaxies with claimed black holes – III. Observations and models for M87, **270,** 271
van Wyk F. *see* Kreidl T.J.
Voges W. *see* Edge A.C.

Wallis M.K. *see* Wickramasinghe N.C.
Walsh D. *see* Garrett M.A.
Ward M.J. *see* Baker A.C.; Branduardi-Raymont G.
Warwick R.S. *see* Branduardi-Raymont G.
Watson M.G. *see* Osborne J.P.; Ramsay G.
Wegner W., Intrinsic colour indices of OB supergiants, giants and dwarfs in the *UBVRIJHKLM* system, **270,** 229
Wheatley P.J. *see* Osborne J.P.
White D.A. *see* Edge A.C.
Whitelock P., Nebulosity around the S star RZ Sgr, **270,** L15
Whitelock P.A., Feast M.W., Koen C., Roberts G., Carter B.S., Variability of η Carinae, **270,** 364
Wickramasinghe D.T. *see* Li J.
Wickramasinghe N.C., Wallis M.K., The cometary hypothesis of the K/T mass extinctions, **270,** 420
Wilkinson P.N. *see* Garrett M.A.
Williams R.J.R., Dyson J.E., On sonic transitions in astrophysical flows, **270,** L52
Wolstencroft R.D. *see* Alton P.B.
Wonnacott D. *see* Barstow M.A.
Wu K. *see* Li J.
Wu X. *see* Yu W.
Wu X., Yang L., Yang P., An analytic examination of the influence of radial viscosity on the stability of a polytropic accretion disc, **270,** 465

Yamada T., Tomita A., Saitō M., Chamaraux P., Kazés I., Radial velocity distribution of the galaxies in the Puppis 'hidden' concentration behind the Milky Way, **270,** 93
Yang L. *see* Wu X.; Yu W.
Yang P. *see* Wu X.
Yates J.A., Cohen R.J., Circumstellar envelope structure of late-type stars as revealed by MERLIN observations of 22-GHz water masers, **270,** 958
Yu W., Yang L., Wu X., Stability of an isothermal magnetized accretion disc with radial viscous force, **270,** 131

Zerbi F.M. *see* Mantegazza L.
Zwitter T., Calvani M., Obscuring tori and orientation effects in QSO spectra, **270,** L27